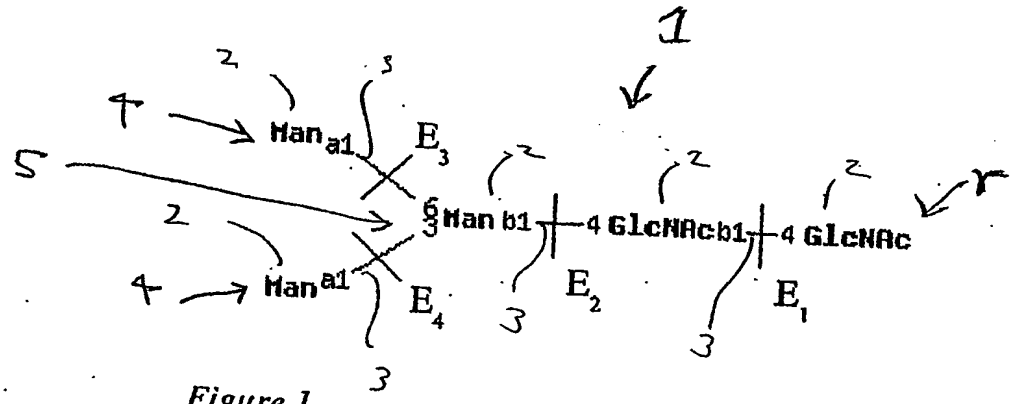


Figure 1

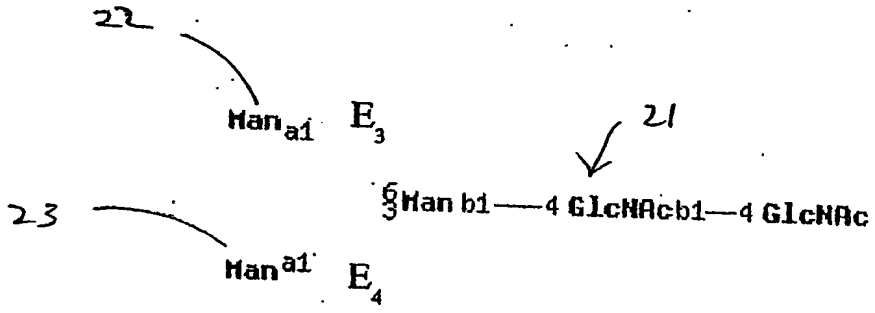


Figure 2

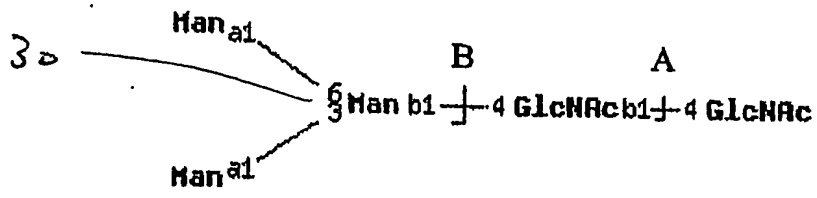


Figure 3

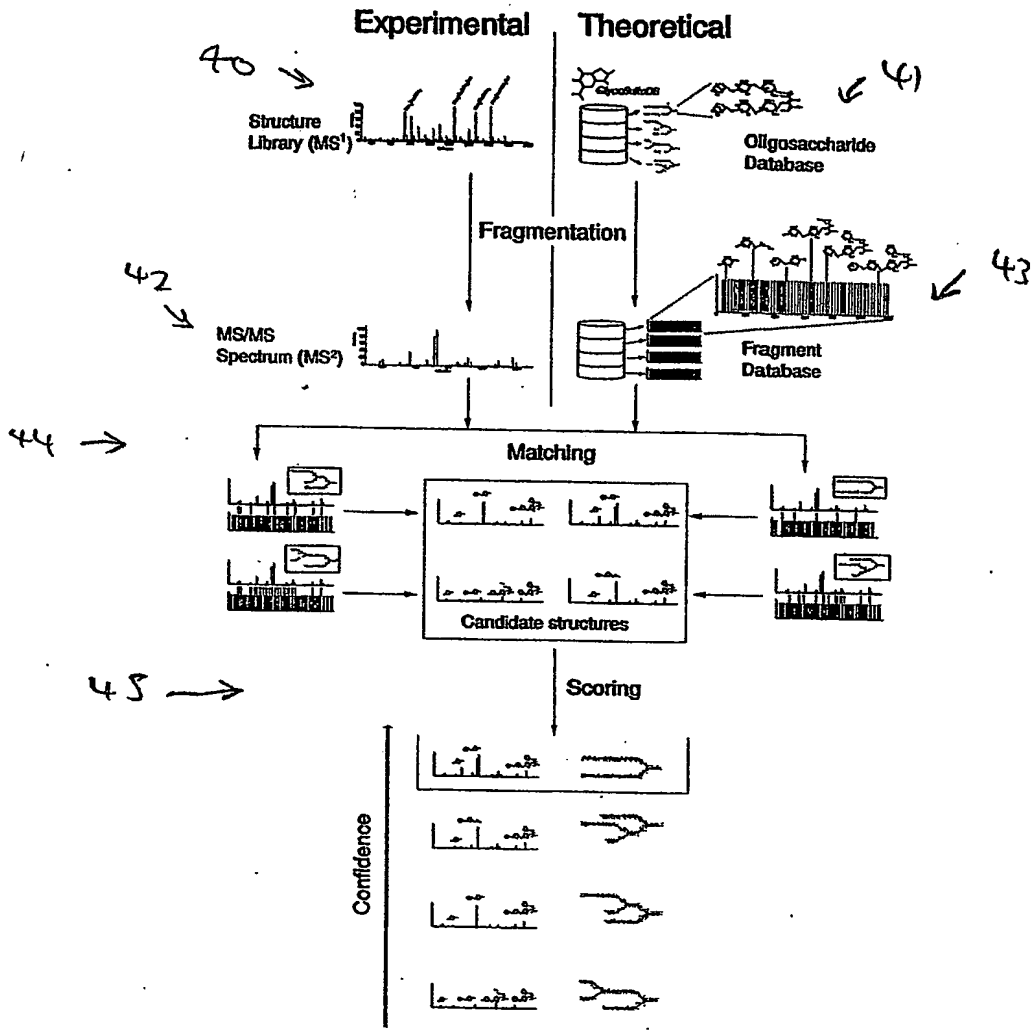

Experimental
Theoretical
40
41
Structure Library (MS¹)
Oligosaccharide Database
Fragmentation
42
43
MS/MS Spectrum (MS²)
Fragment Database
44
Matching
Candidate structures
45
Scoring
Confidence
46

Fig 4

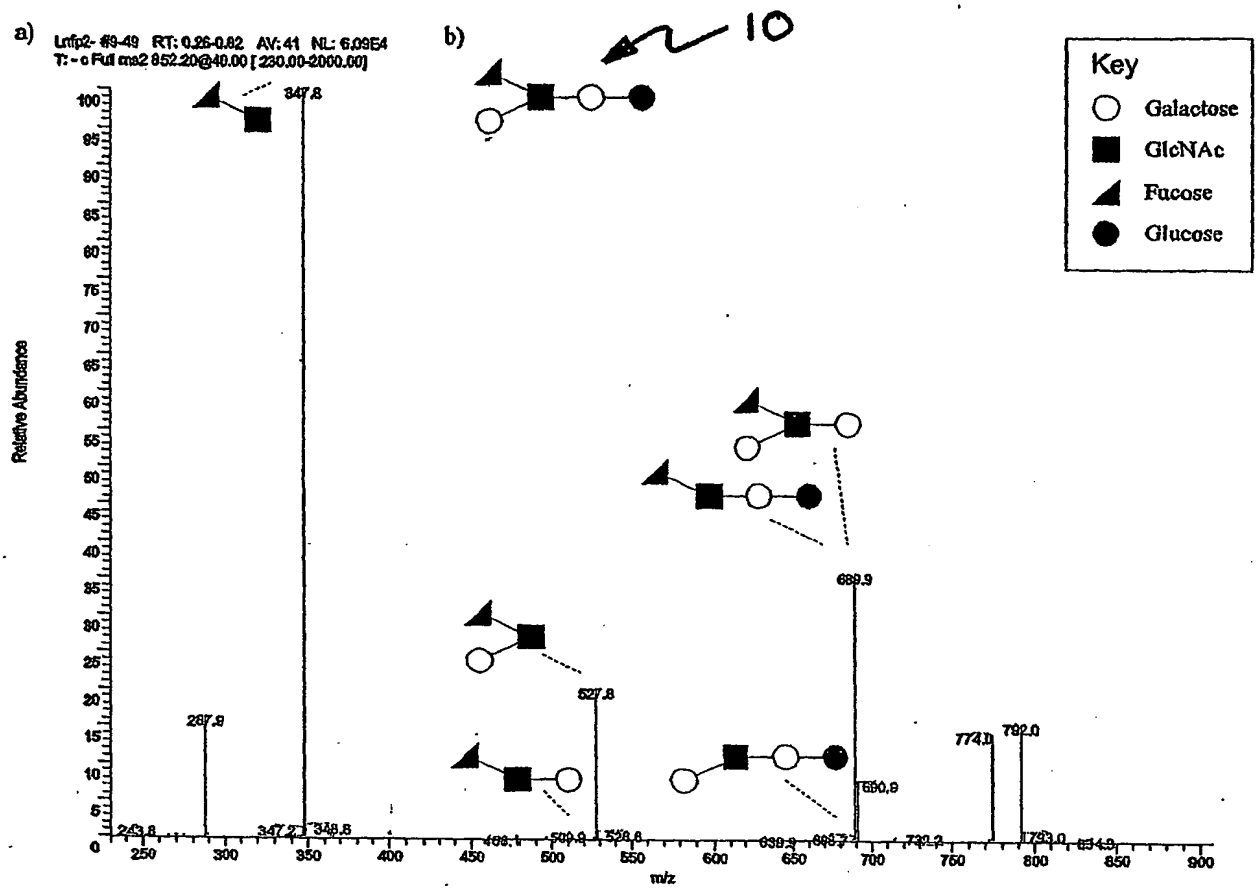

a)
Lnfp2- 49-49 RT: 0.26-0.82 AV: 41 NL: 6.09E4
T: - c Full ms2 852.20@40.00 [230.00-2000.00]
b)
10
Key
Galactose
GlcNAc
Fucose
Glucose
Relative Abundance
m/z
347.8
287.9
527.8
689.9
774.0
792.0
650.9

Figure 5

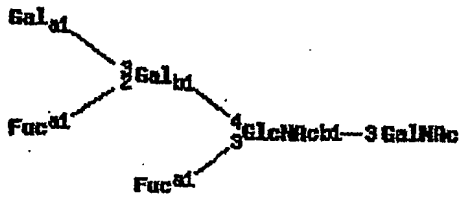


Figure 6 Oligosaccharide structure

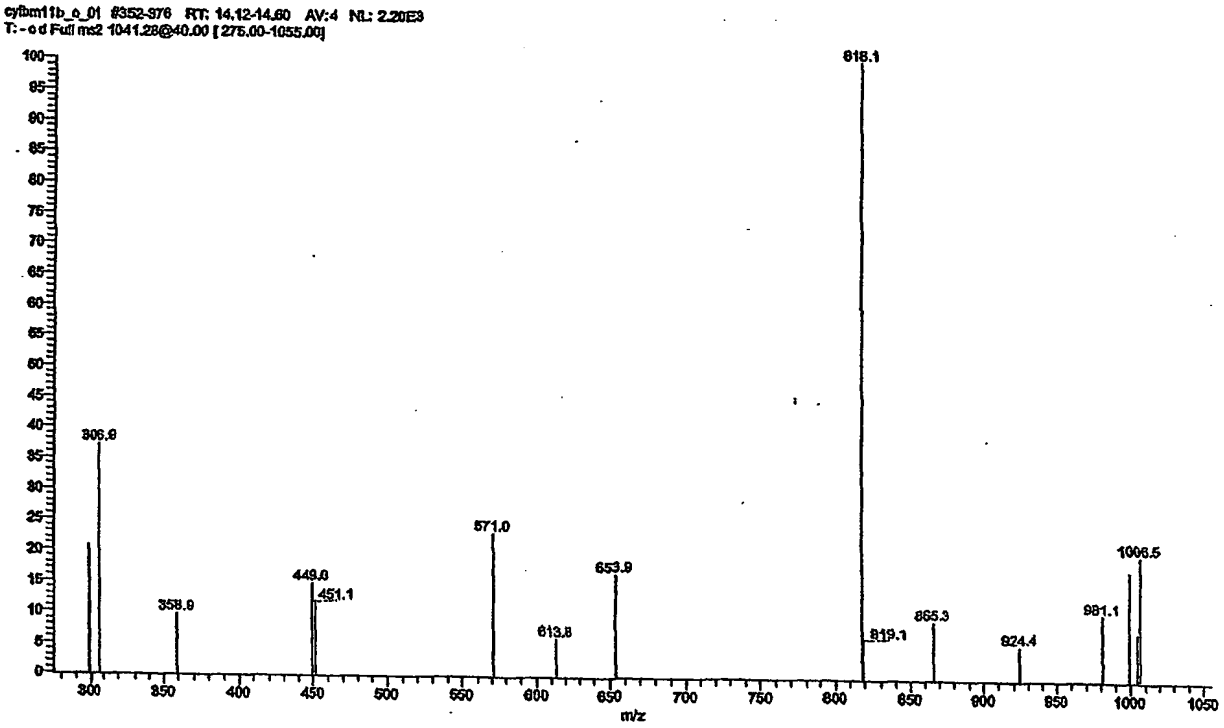


Figure 7 Spectra for oligosaccharide shown in Figure 6

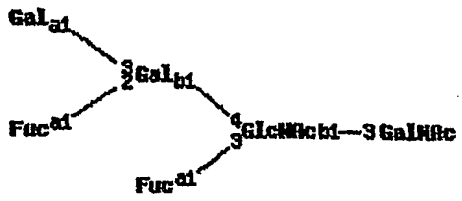
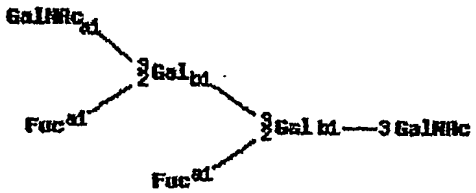
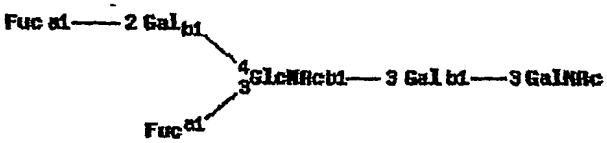
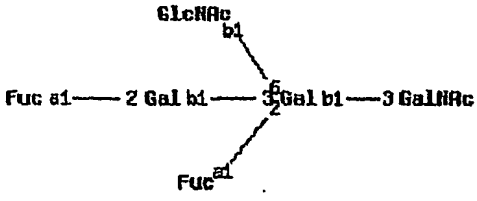
Score	Missed intensities	Grouping score	Structure
.8	123.6	5 out of 5 using 4 double fragments	
.8	156.32	5 out of 5 using 4 double fragments	
.7	141.82	4 out of 5 using 2 double fragments	
.7	147.65	4 out of 5 using 2 double fragments	
.7	162.15	4 out of 5 using 2 double fragments	

FIG 8a

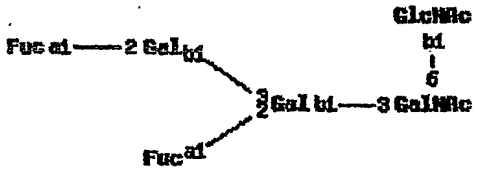
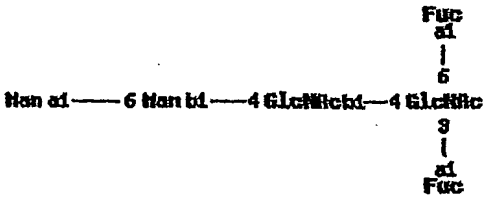
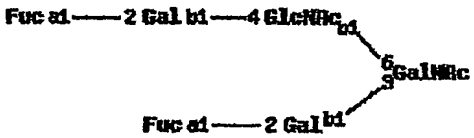
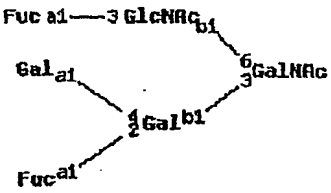
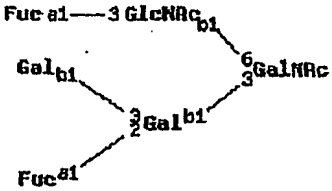
Score	Missed Intensities	Grouping score	Structure
.65	266.98	4 out of 5 using 3 double fragments	
.45	286.4	3 out of 5 using 3 double fragments	
.4	278.51	2 out of 5	
.35	232.08	2 out of 5 with 1 double fragment counted	
.35	232.08	2 out of 5 using 1 double fragment	

Fig 8b

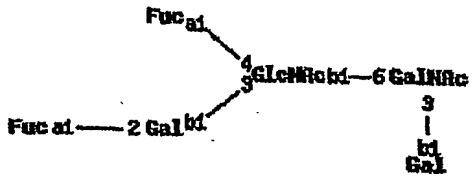
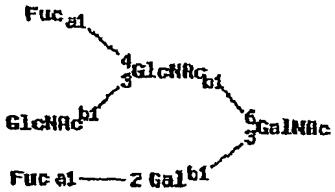
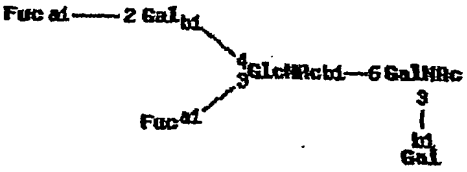
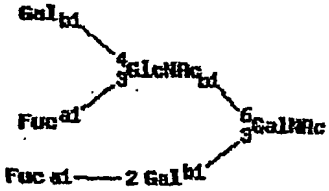
Score	Missed intensities	Grouping score	Structure
.35	235.24	2 out of 5 using 1 double fragment	
.35	235.57	2 out of 5 using 1 double fragment	
.35	241.07	2 out of 5 using 1 double fragment	
.35	255.57	2 out of 5 using 1 double fragment	

Fig. 8c

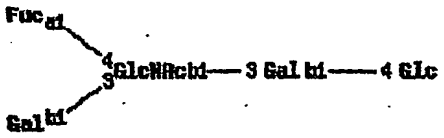


Figure 9

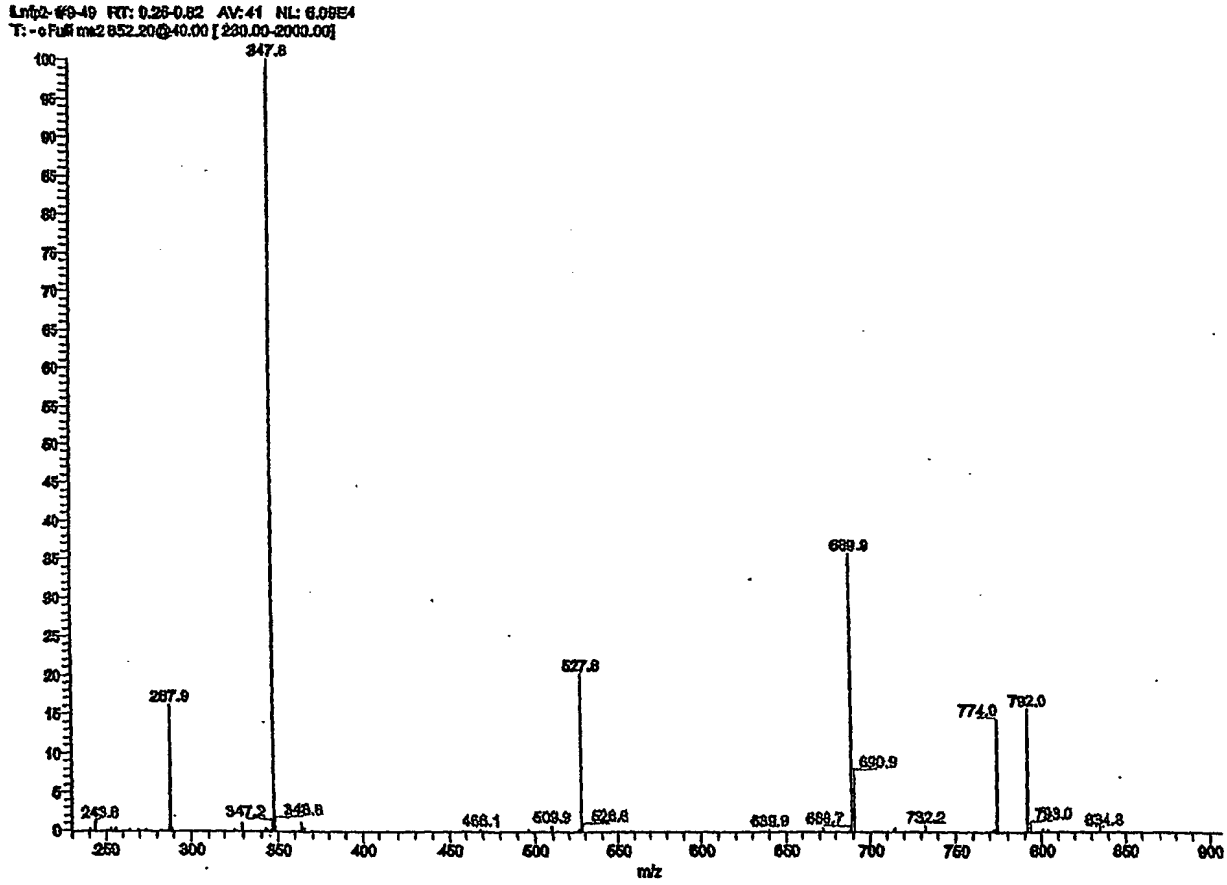


Figure : 10

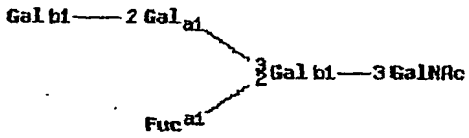
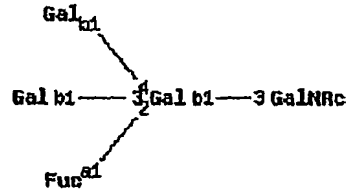
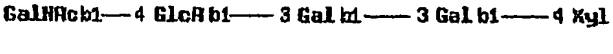
Score	Missed Intensities	Grouping score	Structure
1	29.91	4 out of 4	
1	131.43	4 out of 4	
1	131.43	4 out of 4	
1	131.43	4 out of 4	
.9375	124.3	4 out of 4 using 1 double fragment	
.75	124.87	3 out of 4	
.375	190.01	2 out of 4 using 2 double fragments	

Fig 11

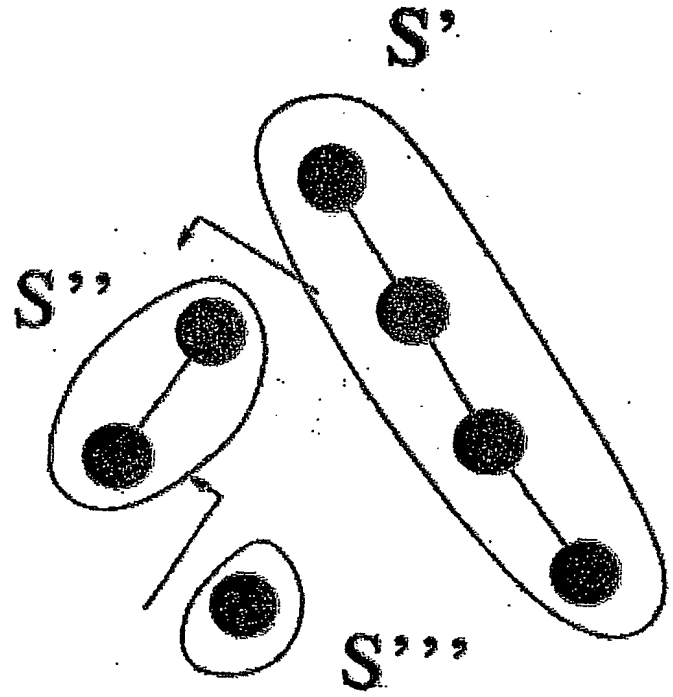


FIG. 13

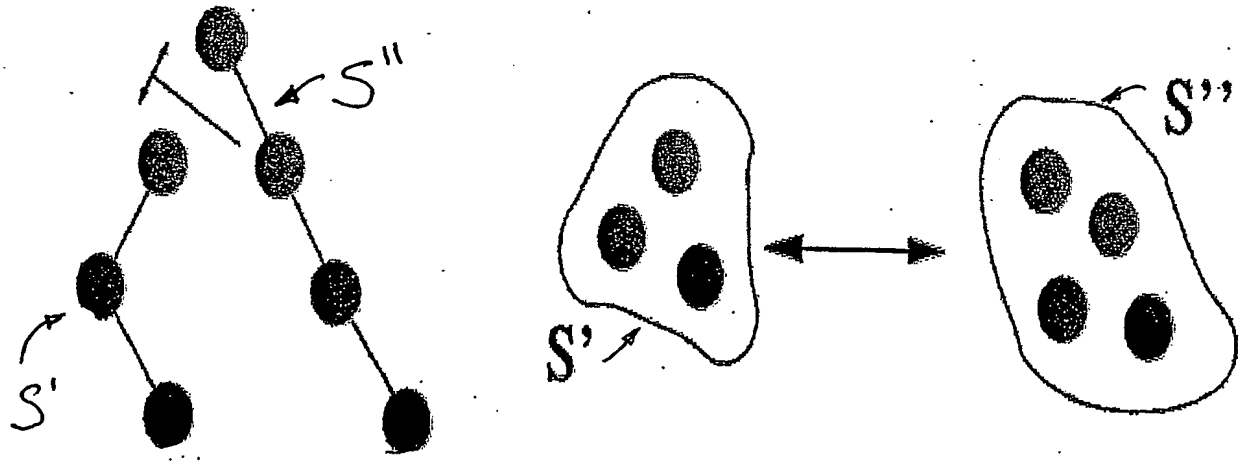
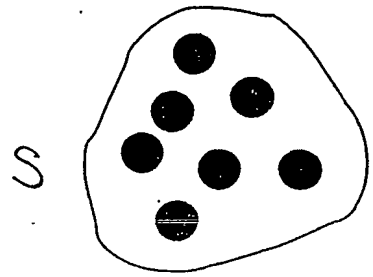


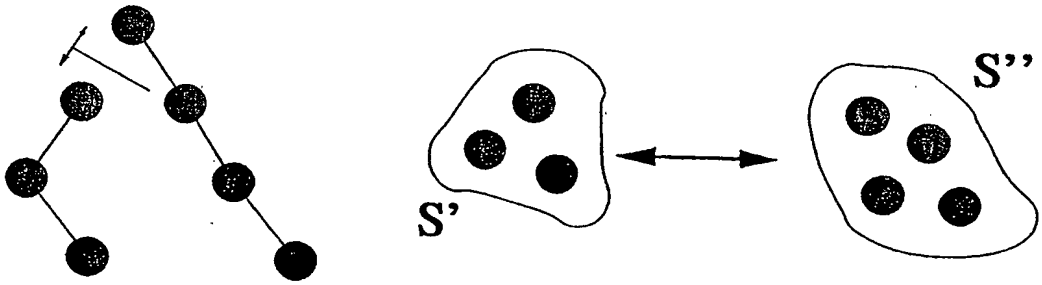
FIG. 12

Fig. 14

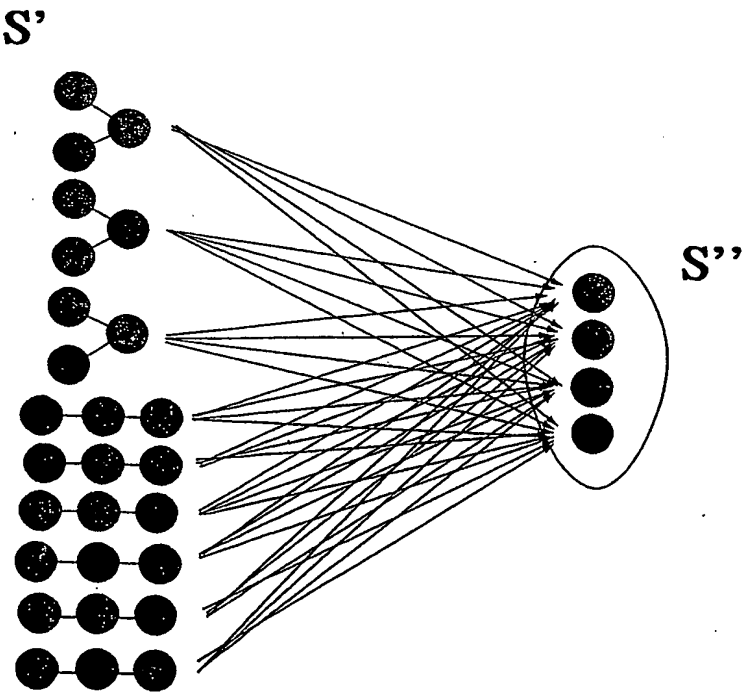
a) No evidence



b) Single fragmentation



c)



x64 = 2304

9 x4 36

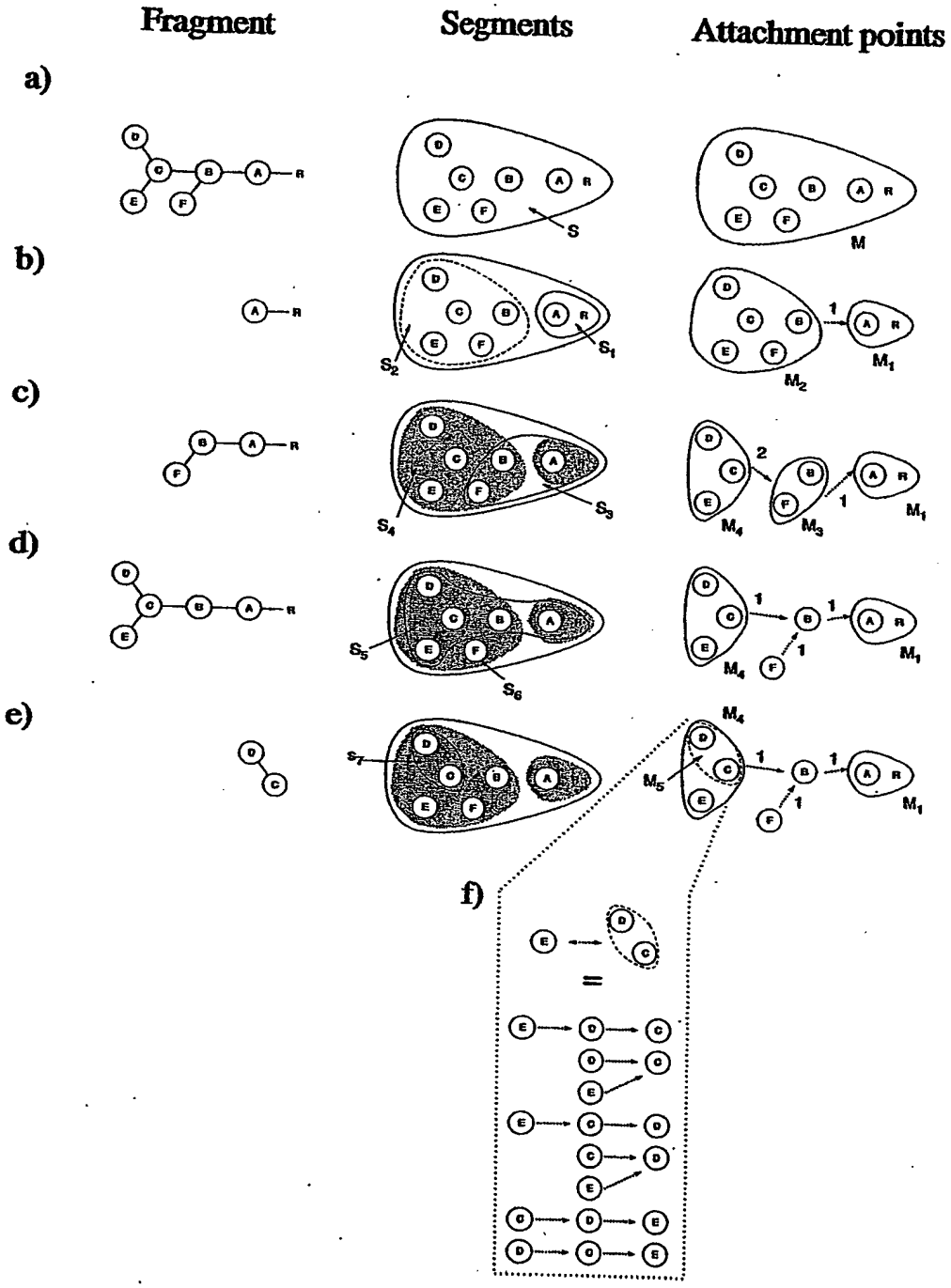

Fragment
Segments
Attachment points
a)
b)
c)
d)
e)
f)
S
S1
S2
S3
S4
S5
S6
S7
M
M1
M2
M3
M4
M5

Fig 15

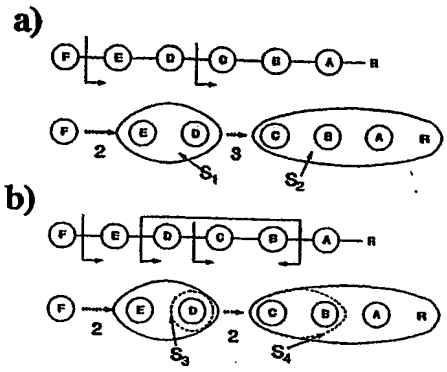


Fig. 16